

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>27675P WO</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 03/ 02361</b>	International filing date (day/month/year) <b>07/03/2003</b>	(Earliest) Priority Date (day/month/year) <b>08/03/2002</b>
Applicant  <b>MAX-PLANCK-GESELLSCHAFT ZUR FÖRDERUNG DER ...</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the international Bureau.

This International Search Report consists of a total of 7 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/3/02361

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K38/16 A61K38/18 A61K38/48 C07K16/28 A61K31/381  
A61K31/16

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, BIOSIS, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 12182 A (MAX PLANCK GESELLSCHAFT ;ZWICK WALLASCH ESTHER (DE); DAUB HENRIK ( ) 22 February 2001 (2001-02-22) cited in the application page 1, line 7 - line 9; claims 1,6-20 page 1, line 21 -page 2, line 3 page 3, line 8 -page 4, line 12 ---	1-12
X	EP 0 648 838 A (AMGEN INC) 19 April 1995 (1995-04-19) page 2, line 3 - line 7; claims 1,48 page 3, line 54 -page 4, line 13 page 10, line 22 -page 11, line 57 --- -/--	1-10

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

\* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

28 July 2003

Date of mailing of the international search report

07/08/2003

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/93/02361

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 35899 A (AXXIMA PHARMACEUTICALS AG ;BEVEC DORIAN (DE); WALLASCH CHRISTIAN ( ) 25 May 2001 (2001-05-25) page 1, line 7 - line 9; claims 1,2,5 page 5, line 17 -page 6, line 20 page 7, line 31 - line 32 page 19, line 24 - line 31 ---	1-10
X	WO 00 69459 A (IMCLONE SYSTEMS INC) 23 November 2000 (2000-11-23) page 5, line 6 - line 10; claims 1,2 ---	1,2,7-10
X	BROWN P D ET AL: "MATRIX METALLOPROTEINASE INHIBITION: A REVIEW OF ANTI-TUMOUR ACTIVITY" ANNALS OF ONCOLOGY, KLUWER, DORDRECHT, NL, vol. 6, 1995, pages 967-974, XP000992860 ISSN: 0923-7534 abstract page 969, left-hand column, paragraph 2 -page 973, left-hand column, paragraph 2 ---	1-10
X	LOZONSCHI L ET AL: "CONTROLLING TUMOR ANGIOGENESIS AND METASTASIS OF C26 MURINE COLON ADENOCARCINOMA BY A NEW MATRIX METALLOPROTEINASE INHIBITOR, KB-R7785, IN TWO TUMOR MODELS" CANCER RESEARCH, AMERICAN ASSOCIATION FOR CANCER RESEARCH, BALTIMORE, MD, US, vol. 59, no. 6, 15 March 1999 (1999-03-15), pages 1252-1258, XP000941536 ISSN: 0008-5472 the whole document ---	1-10
X	WANG X ET AL: "Matrix metalloproteinase inhibitor BB-94 (Batimastat) inhibits human colon tumor growth and spread in a patient-like orthotopic model in nude mice" CANCER RESEARCH, AMERICAN ASSOCIATION FOR CANCER RESEARCH, BALTIMORE, MD, US, vol. 54, no. 17, 1994, pages 4726-4728, XP002142892 ISSN: 0008-5472 the whole document ---	1-10
X	MACAULAY V M ET AL: "Phase I study of intrapleural batimastat (BB-94), a matrix metalloproteinase inhibitor, in the treatment of malignant pleural effusions." CLINICAL CANCER RESEARCH, (1999 MAR) 5 (3) 513-20., XP002249284 the whole document ---	1-10

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/ 3/02361

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	<p>GSCHWIND ANDREAS ET AL: "Lysophosphatidic acid-induced squamous cell carcinoma cell proliferation and motility involves epidermal growth factor receptor signal transactivation."</p> <p>CANCER RESEARCH, (2002 NOV 1) 62 (21) 6329-36. ,</p> <p>XP001148928</p> <p>abstract</p> <p>page 6329, left-hand column, paragraph 1</p> <p>-right-hand column, paragraph 1</p> <p>page 6335, left-hand column, paragraph 1</p> <p>-right-hand column, paragraph 2</p> <p>---</p>	1-10
A	<p>WO 93 22339 A (LUPU RUTH ;LIPPMAN MARC (US); UNIV GEORGETOWN (US))</p> <p>11 November 1993 (1993-11-11)</p> <p>page 1, line 16 -page 2, line 2; claim 1</p> <p>page 5, line 19 -page 6, line 8</p> <p>---</p>	1,2,7-12
A	<p>MITAMURA T ET AL: "DIPHThERIA TOXIN BINDS TO THE EPIDERMAL GROWTH FACTOR (EGF)-LIKE DOMAIN OF HUMAN HEPARIN-BINDING EGF-LIKE GROWTH FACTOR/DIPHThERIA TOXIN RECEPTOR AND INHIBITS SPECIFICALLY ITS MITOGENIC ACTIVITY"</p> <p>JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US,</p> <p>vol. 270, no. 3,</p> <p>20 January 1995 (1995-01-20), pages 1015-1019, XP002912324</p> <p>ISSN: 0021-9258</p> <p>the whole document</p> <p>---</p>	1-10
A	<p>WO 98 36074 A (SCHERING AG)</p> <p>20 August 1998 (1998-08-20)</p> <p>the whole document</p> <p>-----</p>	1,2,7-10

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-8 (partially)

Present claims 1-10 relate to a compound defined by reference to a desirable characteristic or property, namely a compound capable of inhibiting activation of a growth-factor receptor of the EGFR family. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the compounds mentioned in the description at page 3, line 17 to page 4, line 3.

In addition, present claims 1-8 relate to a disorder associated by reference to a desirable characteristic or property, namely a process related to cell proliferation, cell migration, invasivity and anti-apoptosis, with increased G-protein mediated signal transduction. The claims cover all disorders having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such disorders. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the disorders by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the disorders mentioned in the description at page 4, lines 17 to 20, and in Claims 9 and 10.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/02361

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☒ Claims Nos.: 1-8 (partially)  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP93/02361

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0112182	A	22-02-2001	AU 6442600 A CA 2380753 A1 DE 1207876 T1 WO 0112182 A1 EP 1207876 A1 JP 2003506489 T	13-03-2001 22-02-2001 09-01-2003 22-02-2001 29-05-2002 18-02-2003
EP 0648838	A	19-04-1995	US 6562596 B1 AT 239079 T AU 7928194 A DE 69432581 D1 EP 1319669 A2 EP 0648838 A1 WO 9509918 A1 ZA 9407781 A	13-05-2003 15-05-2003 01-05-1995 05-06-2003 18-06-2003 19-04-1995 13-04-1995 17-05-1995
WO 0135899	A	25-05-2001	AU 3003701 A WO 0135899 A2 EP 1229925 A2 JP 2003513995 T	30-05-2001 25-05-2001 14-08-2002 15-04-2003
WO 0069459	A	23-11-2000	AU 4687100 A BG 106110 A BR 0010524 A CA 2373815 A1 CN 1361700 T CZ 20014083 A3 EE 200100603 A EP 1218032 A1 HU 0201480 A2 NO 20015546 A SK 16522001 A3 WO 0069459 A1 US 2002012663 A1	05-12-2000 30-04-2002 28-05-2002 23-11-2000 31-07-2002 14-08-2002 17-02-2003 03-07-2002 28-08-2002 14-01-2002 08-10-2002 23-11-2000 31-01-2002
WO 9322339	A	11-11-1993	AT 190626 T AU 676476 B2 AU 4224493 A CA 2134544 A1 DE 69328091 D1 DE 69328091 T2 EP 0641358 A1 JP 8502241 T NZ 252486 A WO 9322339 A1 US 5578482 A US 5874528 A US 5869618 A US 6040290 A	15-04-2000 13-03-1997 29-11-1993 11-11-1993 20-04-2000 12-10-2000 08-03-1995 12-03-1996 22-08-1997 11-11-1993 26-11-1996 23-02-1999 09-02-1999 21-03-2000
WO 9836074	A	20-08-1998	US 5942602 A AU 6306398 A EP 1007680 A2 WO 9836074 A2 US 6129915 A	24-08-1999 08-09-1998 14-06-2000 20-08-1998 10-10-2000